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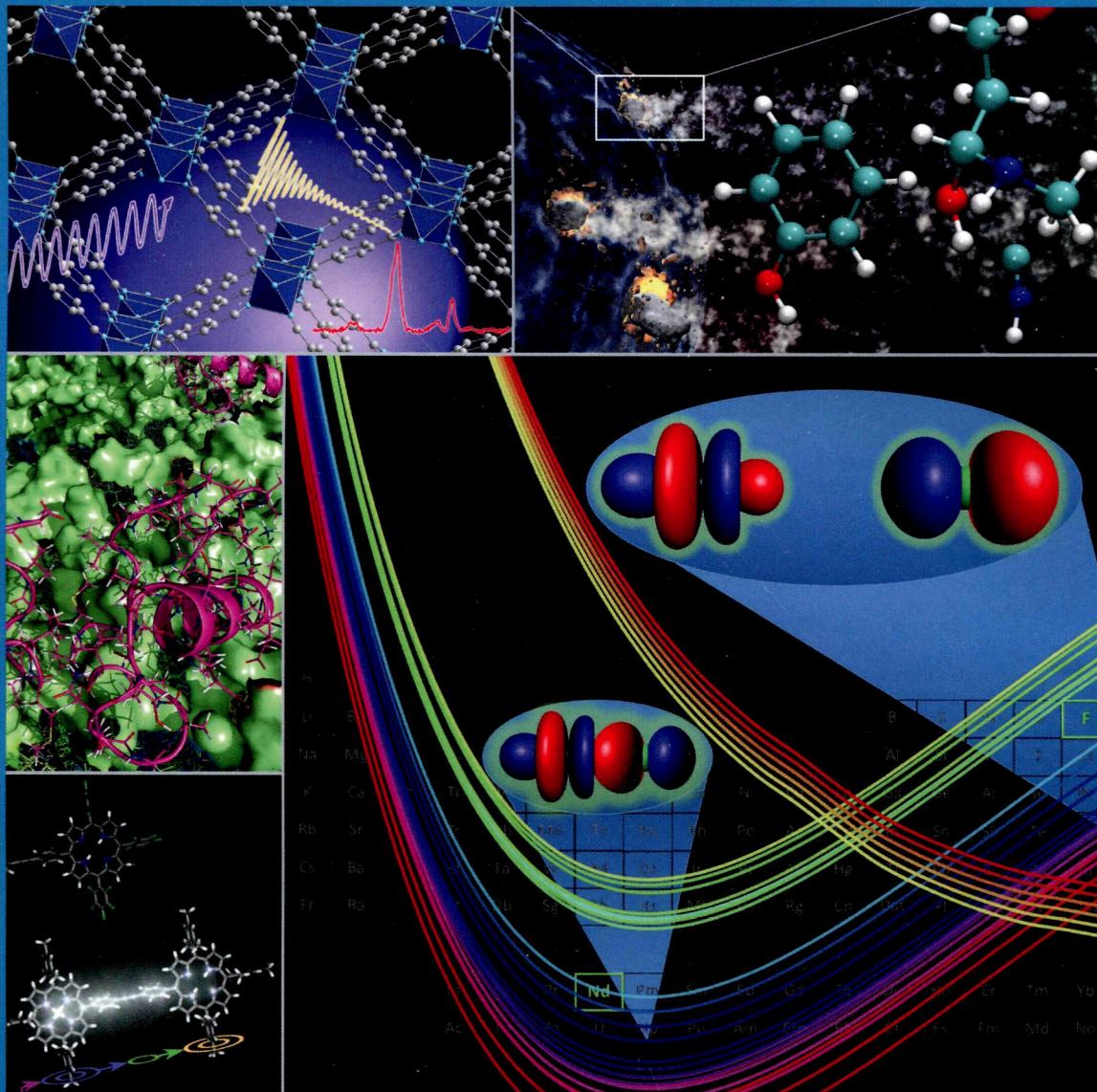
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# THE JOURNAL OF PHYSICAL CHEMISTRY A



**ISOLATED MOLECULES, CLUSTERS, RADICALS, AND IONS; ENVIRONMENTAL CHEMISTRY,  
GEOCHEMISTRY, AND ASTROCHEMISTRY; THEORY**



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**ON THE COVER:** Collage of cover art from recent issues of *J. Phys. Chem.* Top Left:  $^{17}\text{O}$  Solid-State NMR Spectra Provide Signatures of Various Oxygen Species in Metal-Organic Frameworks (*J. Phys. Chem. C* 2013, 117 (33), 16953–16960). Center Left: Behavior of Amyloid  $\beta$ -Peptides on a Ganglioside-Containing Membrane Surface (*J. Phys. Chem. B* 2013, 117 (27), 8085–8094). Bottom Left: Bridge-Mediated EET in Porphyrin Dimers: Electronic Coupling Reduced by Fluorination (*J. Phys. Chem. C* 2013, 117 (24), 12423–12431). Top Right: Synthesis of Prebiotic Hydrocarbons in Impacts of Simple Icy Mixtures on Early Earth (*J. Phys. Chem. A* 2013, 117 (24), 5124–5131). Bottom Right: Computed Potential Energy Curves for Quartet, Doublet, and Sextet States of NdF $^{2+}$  (*J. Phys. Chem. A* 2013, 117 (42), 10881–10888).

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[dx.doi.org/10.1021/jp502217z](https://doi.org/10.1021/jp502217z)

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[dx.doi.org/10.1021/jp501936b](https://doi.org/10.1021/jp501936b)**Intramolecular Hydrogen Bonding Motifs in Deprotonated Glycine Peptides by Cryogenic Ion Infrared Spectroscopy**Brett M. Marsh, Erin M. Duffy, Michael T. Soukup, Jia Zhou, and Etienne Garand<sup>\*</sup>

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[dx.doi.org/10.1021/jp501988g](https://doi.org/10.1021/jp501988g)**Structural and Solvent Control of Nonadiabatic Photochemical Bond Formation: Photocyclization of *o*-Terphenyl in Solution**Molly S. Molloy, Joshua A. Snyder, and Arthur E. Bragg<sup>\*</sup>

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[dx.doi.org/10.1021/jp502153x](https://doi.org/10.1021/jp502153x)**Solvent Dynamics Regulated Electron Transfer in S<sub>2</sub>-Excited Sb and Ge Tetraphenylporphyrins with an Electron Donor Substituent at the Meso-Position**Mamoru Fujitsuka,<sup>a</sup> Tsutomu Shiragami, Dae Won Cho, Sachiko Tojo, Masahide Yasuda, and Tetsuro Majima<sup>b</sup>

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[dx.doi.org/10.1021/jp502904r](https://doi.org/10.1021/jp502904r)**Vitamin B<sub>2</sub> in Nanoscopic Environments under Visible Light: Photosensitized Antioxidant or Phototoxic Drug?**Siddhi Chaudhuri, Subrata Batabyal, Nabarun Polley, and Samir Kumar Pal<sup>\*</sup>**Environmental and Atmospheric Chemistry, Aerosol Processes, Geochemistry, and Astrochemistry**

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[dx.doi.org/10.1021/jp502222z](https://doi.org/10.1021/jp502222z)**Tuning the Adsorption Interactions of Imidazole Derivatives with Specific Metal Cations**Haining Liu, Jason E. Bara, and C. Heath Turner<sup>\*</sup>

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[dx.doi.org/10.1021/jp502844g](https://doi.org/10.1021/jp502844g)**Surface Organic Monolayers Control the Hygroscopic Growth of Submicrometer Particles at High Relative Humidity**Christopher R. Ruehl and Kevin R. Wilson<sup>\*</sup>

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[dx.doi.org/10.1021/jp503431a](https://doi.org/10.1021/jp503431a)**Reaction of Benzene with Atomic Carbon: Pathways to Fulvenallene and the Fulvenallenyl Radical in Extraterrestrial Atmospheres and the Interstellar Medium**Gabriel da Silva<sup>\*</sup>

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[dx.doi.org/10.1021/jp503504e](https://doi.org/10.1021/jp503504e)**Water Accommodation and Desorption Kinetics on Ice**Xiangrui Kong, Panos Papagiannakopoulos, Erik S. Thomson, Nikola Marković, and Jan B. C. Pettersson<sup>\*</sup>

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[dx.doi.org/10.1021/jp503037q](https://doi.org/10.1021/jp503037q)

**Investigations on Preferential Pu(IV) Extraction over U(VI) by *N,N*-Dihexyloctanamide versus Tri-*n*-butyl Phosphate: Evidence through Small Angle Neutron Scattering and DFT Studies**

P. K. Verma, Neelam Kumari, P. N. Pathak,\* Biswajit Sadhu, Mahesh Sundararajan, V. K. Aswal, and P. K. Mohapatra

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[dx.doi.org/10.1021/jp503391p](https://doi.org/10.1021/jp503391p)

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Zheng Ben-Xia, Die Dong,<sup>8</sup> Wang Ling, and Yang Ji-Xian

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